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E03C 1/264

(52) UK CL (Edition O)

A4N N3A

(56) Documents Cited

GB 2155069 A US 5376264 A US 4471497 A
US 3788485 A

(58) Field of Search

UK CL (Edition O) A4N N3A
INT CL⁶ E03C 1/264

(54) Drain filter

(57) The drain filter is made of a flexible body 1, and securely held in place throughout use with suckers 2. Adequate holes 3 allow drainage of water to be only minimally impeded. The sucker 2, also have the effect of raising the drainage holes from the surface of the sink, and therefore also assist in maintaining adequate drainage of water. The skirt 4 will prevent debris from passing down between the device and sink. The tab 5 allow device to be easily removed. The flexible body 1 will allow the device to be easily removed.

Figure 1

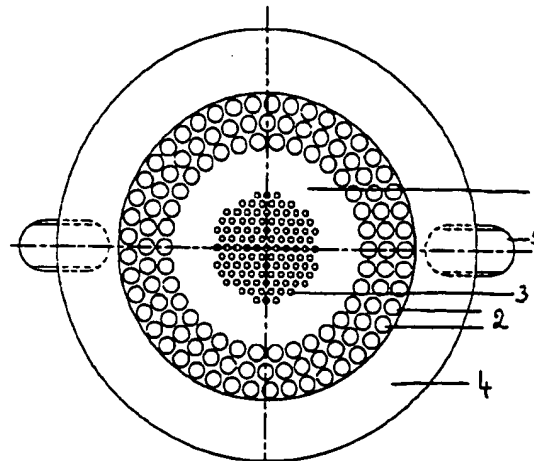
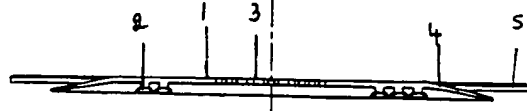


figure 2



GB 2 314 263 A

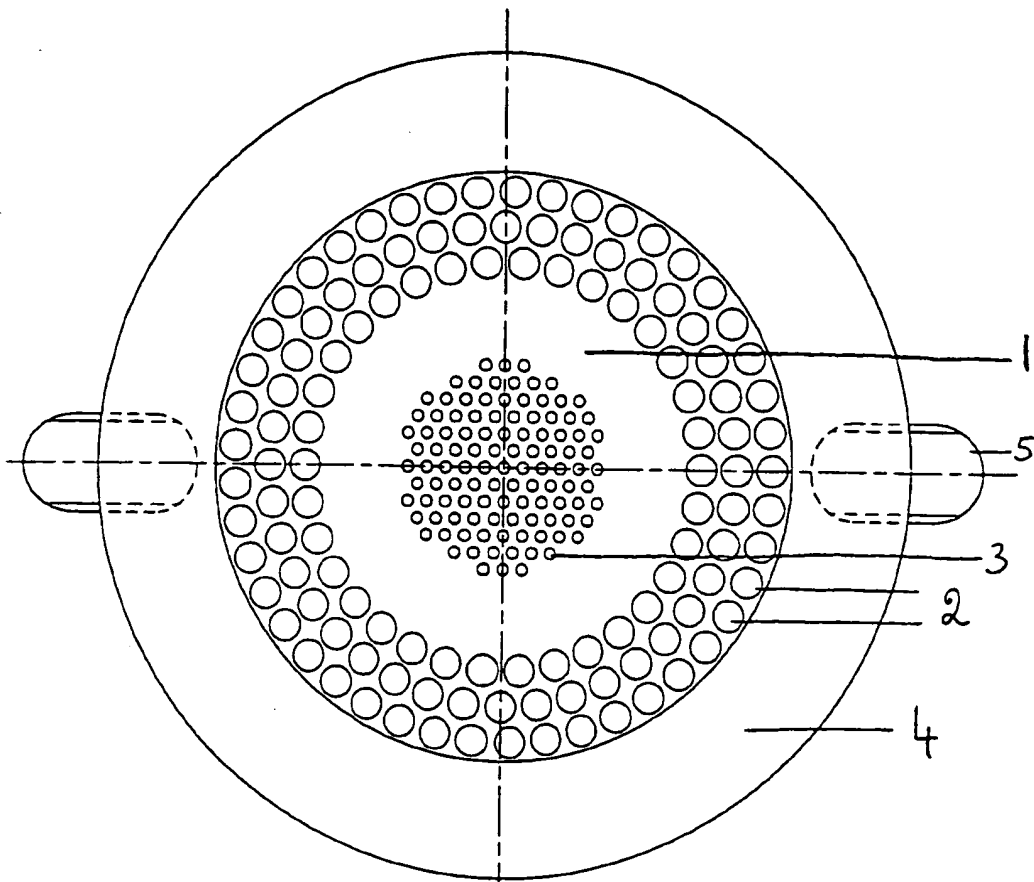
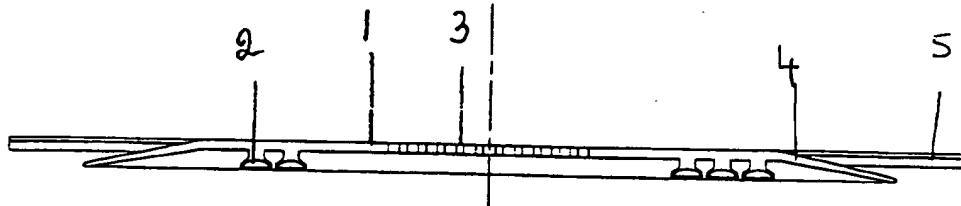
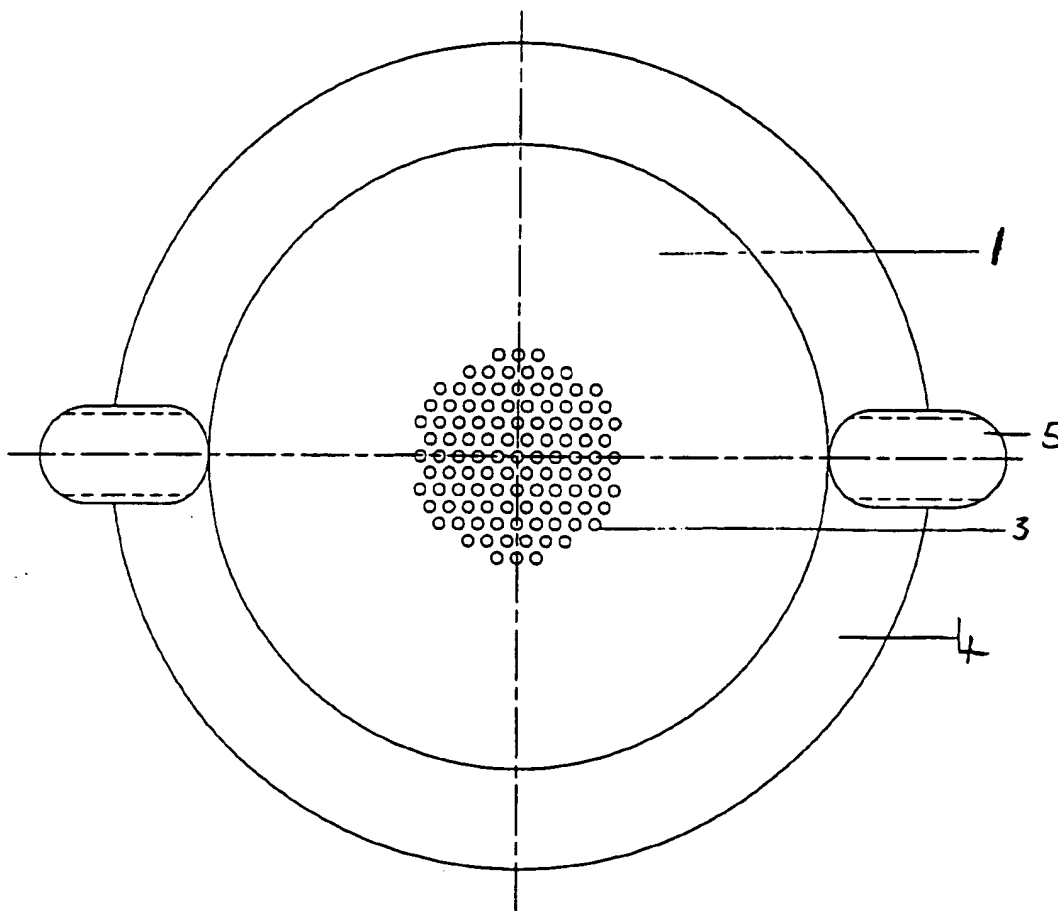
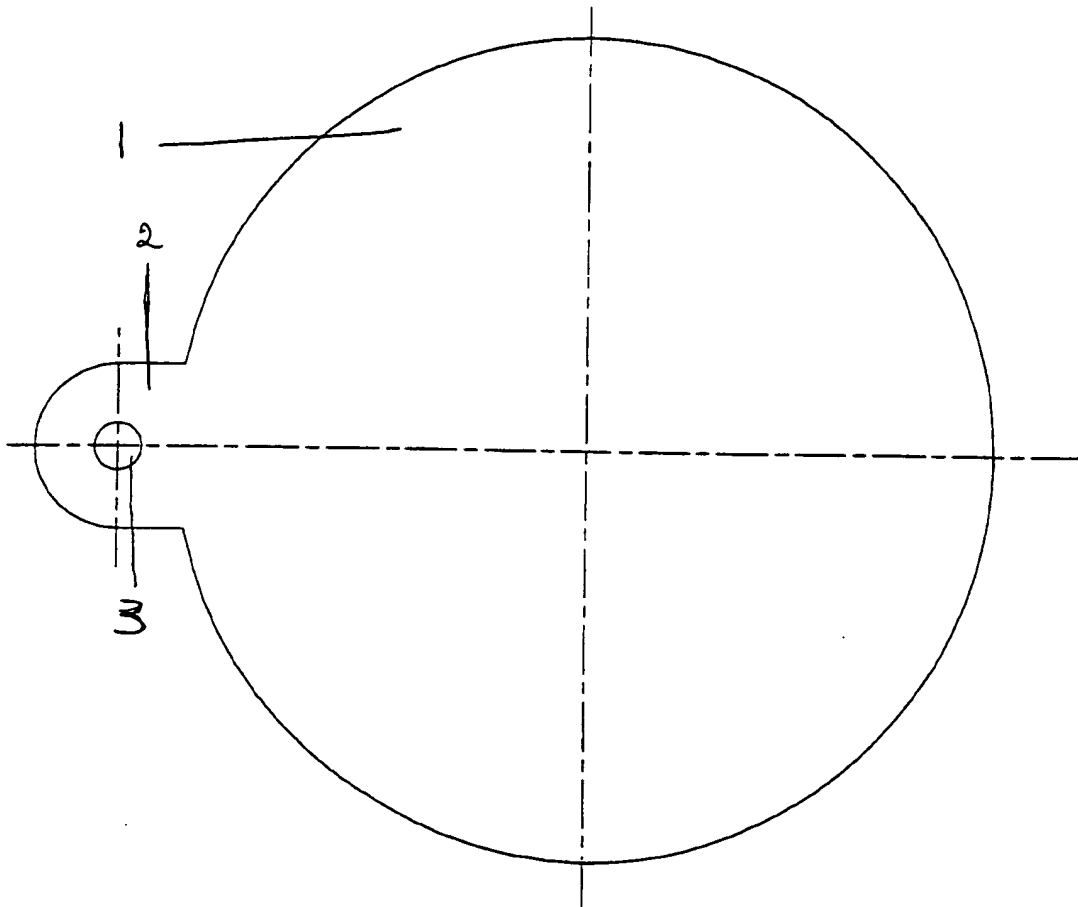
Figure 1figure 2

Figure 3

3/3.

Figure 4



Patent Application

Original application Number GB 9612836.8.

This invention relates to a sink drain guard which will remain anchored when in use.

It prevents debris from passing through plug hole to the drain pipe.

The device does not dramatically reduce flow of water. A message or design can be imprinted on device.

Sink traps on the market generally move around when in use, some allow debris to pass down beside the sides of device when in use and slow down the removal of water from sink to a considerable degree. There are occasions when a message, logo or design would be useful.

- Figure 1 Underside of device
- Figure 2 Transverse section
- Figure 3 Upper side of device
- Figure 4 Optional lid

Referring to the drawings, the trap comprises of a flexible plastic body , and suckers which secure the device firmly whilst in use. The drainage holes are of a sufficient quantity and of a large enough diameter to allow drainage of water from sink to continue at an only minimally reduced rate. The skirt will stay in place during use. The tab allows easy removal of device. The tab and the flexible body allow the folding of the device for easy transporting and removal of debris.

Key to drawings

Sink Guard Main part - Figures 1, 2 & 3

- 1 Flexible Body
- 2 Suckers
- 3 Drainage holes
- 4 Skirt
- 5 Tab

Sink Guard Lid - Figure 4

- 1 Main Body of Lid
- 2 Tab
- 3 Hole

Claims

- 1 A sink drain trap comprising of a flexible body, with holes of a sufficient quantity and surface area so as to avoid impeding the removal of water from sink, whilst preventing debris or small articles from entering plughole. There are suckers attached to secure device to surface of sink drain hole. There will be a peripheral skirt. It will have at least one tab. The device will be made of such a material as to allow the printing of a message, logo or design on its surface. There is an optional lid, made of a similar material, and design.
- 2 The suckers in Claim 1 keep the device in place throughout use.
- 3 The suckers in Claim 1 raises body and therefore drainage holes from surface of sink.
- 3 The tab in Claim 1 allows the easy removal of the device.
- 4 The flexible material in Claim 1 allows the bending of the device
- 5 Adequate total surface area of drainage holes Claim 1, and raising of body Claim 3 of device assist in maintaining rate of drainage of water.
- 6 The skirt in Claim 1 will disallow debris to pass down the sides of device to drainage hole.
- 7 The ability to take message Claim 1 will allow the device to be used as a safety reminder, a marketing reminder, or a decorative article.
- 8 Lid is an optional extra, which will stay in place during use, kept in place by the weight of the water.

Amendments to the claims have been filed as follows

CLAIMS

- 1 A sink drain trap having a flexible body which is capable of being fitted over a water outlet opening of a sink, the body comprising a water flow area including a large number of drainage holes, the water flow area being supported by a ring carrying an annular array of suction cups and the ring having a peripheral skirt capable of forming a resilient seal against a sink surface when the body is mounted thereon.
- 2 A trap as claimed in Claim 1, in which the body is formed in a monolithic construction from a flexible plastics material.
- 3 A trap as claimed in Claim 1 or 2, in which the body includes a removal tab.
- 4 A trap as claimed in any one of Claims 1 to 3, in which the body is provided with a detachable lid capable of covering the drainage holes of the water flow area.
- 5 A trap as claimed in Claim 4, in which the said lid includes its own removal tab.
- 6 A sink drain trap substantially as hereinbefore described, with reference to any one of the accompanying drawings.



Application No: GB 9702318.8
Claims searched: 1-8

Examiner: D. Haworth
Date of search: 4 March 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.O): A4N (N3A)

Int CI (Ed.6): E03C 1/264

Other:

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2155069 A (Vidal) - see especially Fig. 5	1-8
X	US 5376264 A (Betancourt) - see especially Figs. 3 & 4	1-8
X	US 3788485 A (Bruning)	1-8
Y	US 4471497 A (Riutort) - see finger tabs 50	1-8

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

& Member of the same patent family

A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.
E Patent document published on or after, but with priority date earlier than, the filing date of this application.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/32834

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A45D 42/14; F16B 47/00

US CL : 248/206.3

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 248/206.3, 206.4, 205.5, 363; 356/402, 218, 225, 432; 348/182, 184, 191; 250/226, 239; 345/82

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2,314,263 A (SOMNER) 24 December 1997, see entire document.	1-20, 23-25
Y, P	US 6,526,618 B (BOLTON) 04 March 2003, see entire document.	1-20,23-25
Y	US 4,671,976 A (VIDAL) 09 June 1987, see entire document	4,5,8-10,12-18
A,E	US 2004/0114144 A1 (LUTZ et al) 17 June 2004	
A	US 5,168,320 A (LUTZ et al) 01 December 1992	



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

27 July 2004 (27.07.2004)

Date of mailing of the international search report

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